

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (currently amended) A method for integrating a specific payload with a launch vehicle in preparation for a specific flight, the method comprising:
making a plurality of standard payload services available via a plurality of standardized payload integration points of the launch vehicle; and
configuring the specific payload to interface with the standardized integration points through an interface element, the interface element configurable to obtain payload services reallocate a standardized allocation of one or more of the standard payload services among various payloads to be included in the specific flight, to provide one or more mission-specific and payload-specific services to the specific payload, said configuring performed apart from the launch vehicle.
2. (currently amended) The method of claim 1, ~~wherein said configuring comprises~~ further comprising configuring ~~[[an]]~~ the interface element to interface with the specific payload and the standardized launch vehicle integration points.
3. (currently amended) The method of claim 2, wherein configuring ~~[[an]]~~ the interface element comprises configuring a payload carrier to interface with at least one of an avionics system, a software system, a fluid system and a mechanical system of the launch vehicle.
4. (previously presented) The method of claim 1, further comprising configuring one or more systems of the launch vehicle to provide the standard payload services.

5. (currently amended) The method of claim 1, wherein configuring the specific payload comprises:
configuring the specific payload to interface with a payload carrier; and
configuring the payload carrier to interface with the launch vehicle integration points.

6. (currently amended) The method of claim 1, wherein configuring the specific payload comprises configuring at least one of a deployable payload and a non-deployable payload.

7. (currently amended) A method for integrating ~~a plurality of~~ various payloads with a launch vehicle for a given flight, the method comprising:
configuring an interface element to interface with the payloads and with a plurality of standardized integration points of the launch vehicle to allow the payloads to interface with a plurality of systems of the launch vehicle for distribution and management of launch vehicle services to each of the various payloads to meet individual mission-specific needs of each of the various payloads;
configuring the payloads to interface with the interface element; and
integrating the interface element with the launch vehicle without reconfiguring the launch vehicle.

8. (previously presented) The method of claim 7, further comprising providing via the standardized integration points a plurality of standard payload services by the systems of the launch vehicle.

9. (previously presented) The method of claim 7, further comprising emulating one or more of the standardized integration points of the launch vehicle to test the payloads, the testing performed using a test and verification system.

10. (previously presented) The method of claim 7, wherein the systems of the launch vehicle include an avionics system.

11. (original) The method of claim 10, wherein the interface element includes a payload carrier, and configuring an interface element comprises configuring an avionics system of the carrier to interface with the launch vehicle avionics system.

12. (previously presented) The method of claim 7, further comprising providing at least one of power, monitoring/commanding, attitude/pointing, contamination control, fluid services and active cooling to the payloads via the integration points of the launch vehicle.

13. (previously presented) The method of claim 7, wherein at least one of the payloads is deployable from the launch vehicle.

14. (currently amended) A method for integrating a given payload with a launch vehicle in preparation for a given flight, the method comprising:

standardizing a plurality of integration points of the launch vehicle so that the integration points remain unchanged relative to ~~different~~ various payloads and payload configurations;

providing an interface element that can be configured to allocate services available from one or more systems of the launch vehicle via the standardized integration points to ~~the payload~~ meet individual payload-specific and mission-specific needs of various payloads and payload configurations to be included in the given flight, including but not limited to the given payload; and

configuring the given payload to interface with the interface element.

15. (original) The method of claim 14, further comprising integrating the interface element with the launch vehicle via the one or more standardized integration points.

16. (original) The method of claim 14, wherein the configuring is performed apart from the launch vehicle.

17. (previously presented) The method of claim 14, wherein providing an interface element comprises providing at least one of a payload carrier and a front-end software module.

18. (previously presented) The method of claim 14, wherein standardizing integration points of the launch vehicle comprises standardizing transmission of at least one of data, fluid and power between the payload and the vehicle.

19. (original) The method of claim 14, further comprising reallocating a standardized allocation of a service from the launch vehicle among a plurality of payloads.

20. (original) The method of claim 19, wherein the reallocating is performed based on requirements of the plurality of payloads.